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# PERSONAL

# Retirement

Professor UEDA, Kunihiro

(Molecular Clinical Chemistry,
Bioorganic Chemistry)

On the 31st of March 2004, Dr. Kunihiro Ueda retired from Kyoto University after 34 years of service and was honored with the title of Professor Emeritus of Kyoto University.

Dr. Ueda was born in Kyoto on 25th of May, 1940. He graduated from Kyoto University Faculty of Medicine in 1965 and finished an internship at Kyoto University Hospital in 1966. He studied medical chemistry at the Graduate School of Medicine, Kyoto University, under the supervision of Professor O. Hayaishi, and was granted a doctoral degree in 1973. In 1971, he was appointed as an instructor of the Institute for Chemical Research, Kyoto University. On leave from Kyoto University from 1974 to 1976, he studied molecular biology under Professor A. Kornberg at Stanford University, USA. In 1981, he was promoted to a Lecturer of Medical Chemistry and, in 1985, an Associate Professor of Clinical Science and Laboratory Medicine, Kyoto University. In 1994, he was appointed as a full Professor of the Institute for Chemical Research, Kyoto University, and directed the Laboratory of Molecular Clinical Chemistry. He gave lectures at the Graduate School of Medicine and supervised the dissertation works of graduate students.

During his academic carrier, Dr. Ueda made a number of notable findings regarding the regulatory mechanisms of life. In particular, the discovery of "the third nucleic acid", i.e. poly(ADP-ribose), with Dr. Y. Nishizuka in 1966 opened a new era of protein modification by coenzyme, $NAD^+$, and led him to a life-long enthusiasm for research of this novel polymer. His years' effort resulted in the discovery and characterization of three key enzymes, one synthetic and two degradative, in poly(ADP-ribose) metabolism, isolation of poly(ADP-ribosyl) histones from animal tissues, immunohistochemical demonstration of poly(ADP-ribose) in human cells, finding of roles of poly(ADP-ribose) in DNA repair, carcinogenesis and apoptosis, development of specific inhibitors of the synthetase, and discovery of the inhibitors' protective effects against ischemic or oxidative lesions in the brain and heart. All these achievements formed landmarks in the history of poly(ADP-ribose) research and made Dr. Ueda one of the leaders in this research field in the world.

After moving to a clinical laboratory, he also undertook investigation of molecular etiology of Alzheimer's disease and improvement of gene diagnostic techniques. His early finding of an age-related change in expression of Aβ amyloid precursors among patients was a pioneering work in understanding the pathogenesis of Alzheimer's. He later disclosed a possible link between overactivation of poly(ADP-ribose) synthesis and neuronal degeneration in this disease. His efforts in developing methods for clinical gene testing resulted in commercialized products, Ampdirect™ for polymerase chain reaction and a transcription-reverse transcription-concerted reaction device.

For these distinguished contributions to science and biotechnology, he was awarded the Young Researcher Promotion Prize from the Japanese Biochemical Society, the Prize of the Japan Society of Vitaminology and Nutrition, and the Shibata Susumu Medal from the Clinical Pathology Promotion Foundation.

He served in the three Ministries' Joint Committee for Ethics Guidelines for Human Genome/Gene Analysis Research. He chaired the Committee for Regulation of Human Genome/Gene Analysis Research in Kyoto University. He served as members of Directors of many academic societies in Japan and has kept the presidency in the Society for Gene Diagnosis and Therapy since 2001. Internationally, he organized the First Japan-Italy Bilateral Seminar on ADP-riboses and Nitric Oxide (1997, Kyoto) and the Second IFCC-Roche Conference on Human Genomics (2000, Kyoto). He is an International Editor of the *Annals of Clinical Biochemistry* and the *Journal of Enzyme Inhibition and Medicinal Chemistry.*

His contribution to Kyoto University through both academic and administrative activities is gratefully acknowledged.

# Retirement

Professor MATSUKI, Seishi

(Beams and Fundamental Reaction,
Nuclear Science Research Facility)

On the 31st of March, 2004, Dr. Seishi Matsuki retired from Kyoto University after 27 years of service to the University. Dr. Seishi Matsuki was born in Kami-shibetsu, Hokkaido on March 19, 1941. After graduated from the Department of Physics, Faculty of Science, Kyoto University in 1963, he continued his study on nuclear physics in Graduate School of Physics, Kyoto University under the supervision of the late Professor Takuji Yanabu. He finished the Doctor Course of Physics, and was granted a doctoral degree of Science, Kyoto University in 1968.

After continued physics research in the group of Professor Yanabu as a Post Doctoral researcher of Japan Society for the Promotion of Science, he was appointed to an instructor of the Nuclear Engineering Department, Kyushu University in 1969. He moved to the Department of Physics, Nara Women's University as an Associate Professor of physics in 1972 and then belonged to Nuclear Science Research Facility, Institute for Chemical Research, Kyoto University as an Associate Professor in 1977. He was promoted to a full Professor of Institute for Chemical Research, Kyoto University in 2003. He stayed at the Heavy-ion Physics Laboratory (GSI) in Darmstadt, Germany for one year in 1978-1979 as a Humboldt research fellow.

During his academic carrier, Dr. Matsuki has been involved in the study of nuclear, particle and related astro-particle physics. He studied nuclear reactions and nuclear structure during the early period in Kyoto and in Kyushu. One of his remarkable achievements during this period is the systematic observation of the isobaric analog resonances in the (p,nγ) reactions. He clarified the low-lying level structure of Nb nuclei with these resonances. He also started to be involved in the particle and related astro-particle physics in Nara and Kyoto period. After he belonged to the Institute for Chemical Research, he started to apply lasers and quantum electronic techniques to the study of nuclear and particle physics. One of the novel results he obtained along this line is that he achieved the nuclear polarization of more than 30% for In nuclei in InP semiconductors with a laser-assisted Overhauser process. This achievement opened an efficient way to polarize unstable nuclei.

For the recent years he devoted himself to the investigation of dark matters in the Universe with a funding support of a Grant-in-Aid for Specially Promoted Research by the Ministry of Education, Culture, Sports, Science and Technology, Japan. Specifically he developed a quite sensitive microwave single-photon detector with high Rydberg atoms to search for axions, one of the most elegant candidate particles for the dark matter. Related to this research, he also obtained many invaluable findings on the structure of Rydberg atoms and their applications to fundamental researches.

He gave lectures on nuclear and particle physics since 1978 at the graduate school of physics, Kyoto University, and was charged with supervising dissertation works of a number of graduate students. He was a visiting lecturer at many Universities such as Osaka and Kyushu University. He served as a member of the program committee of the Physical Society of Japan. He also served as a member of the international organizing committee of several international conferences on dark matter and nuclear physics.

His contribution to the University through his scientific, educational and administrative activities is hereby gratefully acknowledged.